

Module Handbook (<https://modhb.uni-kl.de/>)

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## Module EIT-HST-252-M-4

Electromagnetic Compatibility (M, 4.0 LP)

### Module Identification

Module Number	Module Name	CP (Effort)
EIT-HST-252-M-4	<i>Electromagnetic Compatibility</i>	4.0 CP (120 h)

### Basedata

CP, Effort	4.0 CP = 120 h
Position of the semester	1 Sem. in WiSe
Level	[4] Bachelor (Specialization)
Language	[DE] German
Module Manager	Gutheil, Bernd, Dr.-Ing. (WMA   DEPT: EIT) ( <a href="/staff/354/">/staff/354/</a> )
Lecturers	Gutheil, Bernd, Dr.-Ing. (WMA   DEPT: EIT) ( <a href="/staff/354/">/staff/354/</a> )
Reference course of study	[EIT-88.781-SG#2010] M.Sc. Electrical and Computer Engineering [2010] ( <a href="/mhb/FB-EIT/cos-556/">/mhb/FB-EIT/cos-556/</a> )
Lifecycle-State	[NORM] Active

### Courses

Type/SWS	Course Number	Choice in Module-Part	SL	PL	CP	Sem.
3V	EIT-HST-252-K-4 ( <a href="/mhb/courses/EIT-HST-252-K-4/">/mhb/courses/EIT-HST-252-K-4/</a> )	P	-	PL1	4.0	WiSe

- About [EIT-HST-252-K-4]: Title: "Electromagnetic Compatibility"; Presence-Time: 42 h; Self-Study: 78 h

### Examination achievement PL1

- Form of examination: **written exam (Klausur) (90 Min.)**
- Examination Frequency: each semester

### Evaluation of grades

The grade of the module examination is also the module grade.

## Contents

From [EIT-HST-252-K-4] **Electromagnetic Compatibility** (/mhb/courses/EIT-HST-252-K-4/):

- Logarithmische Störsignalpegel, Stördämpfung
- Aufbau und Optimierung von Filtern
- Schirmungsmaßnahmen
- Störfestigkeit / Störaussendung
- ESD
- Handhabung normkonformer Messsysteme für niederfrequente elektrische und magnetische Felder und hochfrequente elektromagnetische Felder
- Normen, Strukturen, Rechtsvorschriften und Grenzwerte im Bereich EMVU
- Software zur Feldsimulation

## Competencies / intended learning achievements

- Kenntnis grundlegender physikalischer Wirkungen elektromagnetischer Felder
- Kenntnis grundlegender Störphänomene und Koppelmechanismen elektromagnetischer Größen in technische und biologische Systeme
- Kenntnis der Anwendung normkonformer Mess- und Prüftechnik zur Störemission und -immission.
- Befähigung zur Auswahl und Anwendung geeigneter Maßnahmen zur Sicherstellung der Elektromagnetischen Verträglichkeit
- Kenntnis der grundlegenden Normen Normenstrukturierung und Rechtsvorschriften im Bereich der EMV und EMVU

## Requirements for attendance (informal)

### Modules:

- [EIT-DSV-101-M-2] Fundamentals of Electrical Engineering I (M, 6.0 LP) (/mhb/modules/EIT-DSV-101-M-2/)
- [EIT-FUN-102-M-2] Fundamentals of Electrical Engineering II (M, 6.0 LP) (/mhb/modules/EIT-FUN-102-M-2/)

## Requirements for attendance (formal)

None

References to Module / Module Number [EIT-HST-252-M-4]

<b>Course of Study</b>	<b>Section</b>	<b>Choice/Obligation</b>
[EIT-88.781-SG#2010] M.Sc. Electrical and Computer Engineering [2010] (/mhb/FB-EIT/cos-556/)	Theoretical Part	[P] Compulsory
[EIT-88.781-SG#2010] M.Sc. Electrical and Computer Engineering [2010] (/mhb/FB-EIT/cos-556/)	Theoretical Part	[P] Compulsory
[EIT-88.A44-SG#2018] M.Sc. Media and Communication Technology [2018] (/mhb/FB-EIT/cos-568/)	Technical Elective Subjects	[W] Elective Module
[EIT-88.?-SG#2021] M.Sc. Electrical and Computer Engineering [2021] (/mhb/FB-EIT/cos-686/)	Major Power Engineering (ENT)	[P] Compulsory
[EIT-88.?-SG#2021] M.Sc. Electrical and Computer Engineering [2021] (/mhb/FB-EIT/cos-686/)	Major Communication Technology (KOM)	[P] Compulsory
[EIT-88.?-SG#2021] M.Sc. Media and Communication Technology [2021] (/mhb/FB-EIT/cos-688/)	Technical Elective Modules	[W] Elective Module
[EIT-88.?-SG#2021] M.Sc. Automation and Control (A&C) [2021] (/mhb/FB-EIT/cos-676/)	Elective Modules	[W] Elective Module